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                alerts (SDIs) affected
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                alerts (SDIs) affected
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                alerts (SDIs) affected
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                THREE NEW FIELDS ADDED TO IFIPAT/IFIUDB/IFICDB
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                EPFULL: New patent full text database to be available on STN
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     15 DEC 30
                CAPLUS - PATENT COVERAGE EXPANDED
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                CA/CAPLUS - Expanded patent coverage to include the Russian
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1121 L1 AND CATHETER?

=> s 12 and electrode#

497 L2 AND ELECTRODE#

=> s 13 and (potential or gradient)

464 L3 AND (POTENTIAL OR GRADIENT)

=> s 14 and iontophore?

13 L4 AND IONTOPHORE?

=> d 15 1-3 ibib abs

ANSWER 1 OF 13 USPATFULL on STN

ACCESSION NUMBER:

2004:145443 USPATFULL

TITLE: Method and system for spinal cord stimulation prior to

and during a medical procedure

INVENTOR(S): Hill, Michael R.S., Minneapolis, MN, UNITED STATES

> Jahns, Scott E., Hudson, WI, UNITED STATES Keogh, James R., Maplewood, MN, UNITED STATES

NUMBER KIND DATE

PATENT INFORMATION: US 2004111118 A1 20040610 US 2003-716810 A1 20031119 (10) APPLICATION INFO.:

RELATED APPLN. INFO.: Continuation of Ser. No. US 2002-215443, filed on 9 Aug

2002, GRANTED, Pat. No. US 6690973 Division of Ser. No. US 2000-669960, filed on 26 Sep 2000, GRANTED, Pat. No.

US 6487446

DOCUMENT TYPE: FILE SEGMENT:

Utility APPLICATION

LEGAL REPRESENTATIVE:

MEDTRONIC, INC., 710 MEDTRONIC PARKWAY NE, MS-LC340,

MINNEAPOLIS, MN, 55432-5604

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

49

NUMBER OF DRAWINGS:

4 Drawing Page(s)

LINE COUNT:

1297

A method of performing a medical procedure, such as surgery, is AB

provided. The spinal cord is stimulated in order to control at least one

physiological function. The medical procedure is performed and

stimulation of the spinal cord is stopped.

ANSWER 2 OF 13 USPATFULL on STN

ACCESSION NUMBER:

2004:83671 USPATFULL

TITLE:

Method and device for enhanced delivery of a

biologically active agent through the spinal spaces

into the central nervous system of a mammal

INVENTOR(S):

Lerner, Eduard N., Amsterdam, NETHERLANDS

Intrabrain NV, Curacao, NETHERLANDS (non-U.S.

corporation)

NUMBER KIND DATE

PATENT INFORMATION: APPLICATION INFO.:

PATENT ASSIGNEE(S):

US 2004064127 A1 20040401 US 2003-687816 A1 20031020 (10)

RELATED APPLN. INFO.:

Division of Ser. No. US 2002-50183, filed on 18 Jan

2002, PENDING Continuation-in-part of Ser. No. US

1998-197133, filed on 20 Nov 1998, GRANTED, Pat. No. US 6410046 Continuation-in-part of Ser. No. US 1998-77123,

filed on 20 May 1998, GRANTED, Pat. No. US 6678553 Continuation-in-part of Ser. No. WO 1996-EP5086, filed

on 19 Nov 1996, UNKNOWN

DOCUMENT TYPE: FILE SEGMENT:

Utility APPLICATION

LEGAL REPRESENTATIVE:

NIXON & VANDERHYE, PC, 1100 N GLEBE ROAD, 8TH FLOOR,

ARLINGTON, VA, 22201-4714

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

12 1

NUMBER OF DRAWINGS:

4 Drawing Page(s)

LINE COUNT:

926 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

A delivery method and implantable apparatus that allows for controlled, enhanced and (pre)-programmable administration of a biologically active

agent into the spinal structures and/or the brain via the epidural space of a mammal, particularly of a human being and including a feedback regulated delivery method and apparatus

specifically in the treatment of neurological diseases and chronic pain.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 3 OF 13 USPATFULL on STN

ACCESSION NUMBER:

2003:260405 USPATFULL

TITLE:

Multi-probe system

INVENTOR(S):

Kucharczyk, John, Minneapolis, MN, United States

Gillies, George T., Charlottesville, VA, United States

PATENT ASSIGNEE(S):

University of Virginia Patent Foundation,

Charlottesville, VA, United States (U.S. corporation) Regents of the University of Minnesota, Minneapolis,

MN, United States (U.S. corporation)

NUMBER KIND DATE -----

PATENT INFORMATION: US 6626902 B1 20030930 APPLICATION INFO.: US 2000-548110 20000412 20000412 (9)

DOCUMENT TYPE: Utility

FILE SEGMENT: GRANTED PRIMARY EXAMINER: Gibson, Roy D.

LEGAL REPRESENTATIVE: Mark A. Litman & Assoc. P.A.

NUMBER OF CLAIMS: 21 EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 2 Drawing Figure(s); 2 Drawing Page(s)

LINE COUNT: 1417

A multi-lumen, multi-functional catheter system comprising a AB

plurality of axial lumens, at least one lumen supporting a functionality

other than material delivery and material removal.

=> d 15 4-13 ibib abs

ANSWER 4 OF 13 USPATFULL on STN

ACCESSION NUMBER: 2003:140963 USPATFULL

TITLE: Antidepressants and their analogues as long-acting

local anesthetics and analgesics

INVENTOR(S): Wang, Ging Kuo, Westwood, MA, UNITED STATES

Gerner, Peter, Weston, MA, UNITED STATES

Verrecchia, Donald K., Winchester, MA, UNITED STATES

NUMBER KIND DATE

PATENT INFORMATION: US 2003096805 A1 20030522 APPLICATION INFO.: US 2002-117708 A1 20020404 (10)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2001-965138, filed

on 26 Sep 2001, PENDING

NUMBER DATE -----

WO 2001-US30268 20010926 US 2000-235432P 20000926 (60) PRIORITY INFORMATION:

DOCUMENT TYPE: Utility APPLICATION FILE SEGMENT:

LEGAL REPRESENTATIVE: Edward R. Gates, Esq., Chantal Morgan D'Apuzzo, Ph.D.,

Wolf, Greenfield & Sacks, P.C., 600 Atlantic Avenue,

Boston, MA, 02210

NUMBER OF CLAIMS: 78 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 13 Drawing Page(s)

LINE COUNT: 1402

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Methods and compositions of antidepressants and analogs thereof for inducing local long-lasting anesthesia and analgesia are provided. The methods and compositions are useful for alleviating acute and chronic

pain, particularly useful for treating a localized pain.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 5 OF 13 USPATFULL on STN

ACCESSION NUMBER: 2002:338467 USPATFULL

TITLE: Method and system for spinal cord stimulation prior to

and during a medical procedure

INVENTOR(S): Hill, Michael R.S., Minneapolis, MN, UNITED STATES

> Jahns, Scott E., Hudson, WI, UNITED STATES Keogh, James R., Maplewood, MN, UNITED STATES

NUMBER KIND DATE _____

US 2002193843 A1 20021219 US 6690973 B2 20040210 US 2002-215443 A1 20020809 (10) PATENT INFORMATION:

APPLICATION INFO.:

Division of Ser. No. US 2000-669960, filed on 26 Sep RELATED APPLN. INFO.:

2000, PENDING

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Daniel W. Latham, Medtronic, Inc., 710 Medtronic

Parkway, Minneapolis, MN, 55432

NUMBER OF CLAIMS: 27 EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 4 Drawing Page(s)

LINE COUNT: 1172

A method of performing a medical procedure, such as surgery, is

provided. The spinal cord is stimulated in order to control at least one

physiological function. The medical procedure is performed and

stimulation of the spinal cord is stopped.

ANSWER 6 OF 13 USPATFULL on STN

ACCESSION NUMBER: 2002:323509 USPATFULL

TITLE: Methods and apparatus for enhanced and controlled

delivery of a biologically active agent into the

central nervous system of a mammal

INVENTOR (S): Lerner, Eduard N., Amsterdam, NETHERLANDS

PATENT ASSIGNEE(S): Intrabrain International NV, Curacao, NETHERLANDS

(non-U.S. corporation)

NUMBER KIND -----PATENT INFORMATION:

US 2002183683 A1 20021205 US 2002-51817 A1 20020118 (10) APPLICATION INFO.:

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1998-197133, filed

on 20 Nov 1998, GRANTED, Pat. No. US 6410046

Continuation of Ser. No. WO 1995-EP9605086, filed on 19

Nov 1995, UNKNOWN

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: PERKINS, SMITH & COHEN LLP, ONE BEACON STREET, 30TH

FLOOR, BOSTON, MA, 02108

NUMBER OF CLAIMS: 31 EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 16 Drawing Page(s)

LINE COUNT: 1321

AB Disclosed are invasive and non-invasive central nervous system (CNS)

drug delivery methods and devices for use in these

methods that essentially circumvent the blood-brain barrier. More

specifically, the disclosed methods and devices utilize iontophoresis as delivery technique that allows for enhanced

delivery of a biologically active agent into the CNS of a mammal as well

as for (pre)-programmable and controlled transport.

ANSWER 7 OF 13 USPATFULL on STN

ACCESSION NUMBER: 2002:311794 USPATFULL

TITLE: Method and system for spinal cord stimulation prior to

and during a medical procedure

INVENTOR(S): Hill, Michael R.S., Minneapolis, MN, United States

> Jahns, Scott E., Hudson, WI, United States Keogh, James R., Maplewood, MN, United States

PATENT ASSIGNEE(S): Medtronic, Inc., Minneapolis, MN, United States (U.S.

corporation)

NUMBER KIND DATE US 6487446 B1 20021126 US 2000-669960 20000926 PATENT INFORMATION: APPLICATION INFO.: 20000926 (9)

DOCUMENT TYPE: Utility FILE SEGMENT: GRANTED

FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Wayner, William

LEGAL REPRESENTATIVE: Berry, Thomas G., Latham, Daniel W.

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 4 Drawing Figure(s); 4 Drawing Page(s)

LINE COUNT: 1219

AΒ A method of performing a medical procedure, such as surgery, is

provided. The spinal cord is stimulated in order to control at least one

physiological function. The medical procedure is performed and

stimulation of the spinal cord is stopped.

ANSWER 8 OF 13 USPATFULL on STN

ACCESSION NUMBER: 2002:179185 USPATFULL

TITLE: Tricyclic antidepressants and their analogues as

long-acting local anesthetics and analgesics

INVENTOR(S): Wang, Ging Kuo, Westwood, MA, UNITED STATES

Gerner, Peter, Weston, MA, UNITED STATES

PATENT ASSIGNEE(S): The Brigham and Woman's Hospital, Inc. (U.S.

corporation)

NUMBER KIND DATE PATENT INFORMATION: US 2002094975 A1 20020718 US 6545057 B2 20030408 APPLICATION INFO.: US 2001-965138 A1 20010926 (9)

NUMBER DATE

PRIORITY INFORMATION: US 2000-235432P 20000926 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Edward R. Gates, Esq., Wolf, Greenfield & Sacks, P.C.,

600 Atlantic Avenue, Boston, MA, 02210

600 32 NUMBER OF CLAIMS: EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 11 Drawing Page(s)

LINE COUNT: 1006

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Methods and compositions of tricyclic antidepressants for inducing local

long-lasting anesthesia and analgesia are provided. The methods and

compositions are useful for alleviating acute and chronic pain,

particularly useful for treating a localized pain.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 9 OF 13 USPATFULL on STN

ACCESSION NUMBER: 2002:157970 USPATFULL

TITLE: Method and device for enhanced delivery of a

biologically active agent through the spinal spaces

into the central nervous system of a mammal

INVENTOR(S): Lerner, Eduard N., Amsterdam, NETHERLANDS

PATENT ASSIGNEE(S): Intrabrain International NV, Curacao, NETHERLANDS

(non-U.S. corporation)

NUMBER KIND DATE

US 2002082583 A1 US 2002-50183 A1 PATENT INFORMATION: 20020627

APPLICATION INFO.: A1 20020118 (10)

Continuation-in-part of Ser. No. US 1998-197133, filed RELATED APPLN. INFO.:

on 20 Nov 1998, PENDING Continuation of Ser. No. WO

1995-EP9605086, filed on 19 Nov 1995, UNKNOWN

DOCUMENT TYPE: Utility

APPLICATION FILE SEGMENT:

LEGAL REPRESENTATIVE: PERKINS, SMITH & COHEN LLP, ONE BEACON STREET, 30TH

FLOOR, BOSTON, MA, 02108

NUMBER OF CLAIMS: 12 EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 4 Drawing Page(s)

LINE COUNT: 927

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

A delivery method and implantable apparatus that allows for controlled, enhanced and (pre)-programmable administration of a biologically active agent into the spinal structures and/or the brain via the epidural space of a mammal, particularly of a human being and including a feedback regulated delivery method and apparatus

specifically in the treatment of neurological diseases and chronic pain.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 10 OF 13 USPATFULL on STN

ACCESSION NUMBER: 1999:45828 USPATFULL

TITLE: Method and apparatus for alleviating cardioversion

shock pain by delivering a bolus of analgesic

Elsberry, Dennis D., New Hope, MN, United States INVENTOR (S):

Mehra, Rahul, Stillwater, MN, United States Otten, Lynn M., Blaine, MN, United States Rise, Mark T., Monticello, MN, United States Thompson, David L., Fridley, MN, United States

Medtronic, Inc., Minneapolis, MN, United States (U.S. PATENT ASSIGNEE(S):

corporation)

NUMBER KIND DATE ----- -----

US 5893881 19990413 US 1997-920645 19970829 (8) PATENT INFORMATION: APPLICATION INFO.:

RELATED APPLN. INFO.: Continuation of Ser. No. US 1995-525995, filed on 8 Sep

1995, now patented, Pat. No. US 5662689, issued on 2

Sep 1997

DOCUMENT TYPE: Utility FILE SEGMENT: Granted

Lateef, Marvin M. PRIMARY EXAMINER: ASSISTANT EXAMINER: Layno, Carl H.

LEGAL REPRESENTATIVE: Duthler, Reed A., Patton, Harold R.

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 9 Drawing Figure(s); 9 Drawing Page(s)

LINE COUNT: 1496

AB An implantable cardioverter for providing cardioversion electrical energy to at least one chamber of a patient's heart in need of cardioversion and applying a pain alleviating therapy at an appropriate site in the patient's body prior to or in conjunction with the delivery of the cardioversion energy to the heart chamber to alleviate propagated pain perceived by the patient. The combined cardioversion and pain alleviating therapies are preferably realized in a single implantable, multiprogrammable medical device or separate implantable cardioversion and pain control devices with means for communicating operating and status commands between the devices through the patient's body.

L5 ANSWER 11 OF 13 USPATFULL on STN

ACCESSION NUMBER: 1998:121898 USPATFULL

TITLE: Method and apparatus for alleviating cardoversion shock

pain

INVENTOR(S): Elsberry, Dennis D., New Hope, MN, United States

Mehra, Rahul, Stillwater, MN, United States Otten, Lynn M., Blaine, MN, United States Rise, Mark T., Monticello, MN, United States Thompson, David L., Fridley, MN, United States

PATENT ASSIGNEE(S): Medtronic, Inc., Minneapolis, MN, United States (U.S.

corporation)

NUMBER KIND DATE

PATENT INFORMATION: US 5817131 19981006 APPLICATION INFO.: US 1997-813244 19970307 (8)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1995-525995, filed on 8 Sep

1995, now patented, Pat. No. US 5662689

DOCUMENT TYPE: Utility FILE SEGMENT: Granted

PRIMARY EXAMINER: Kamm, William E.
ASSISTANT EXAMINER: Layno, Carl H.

LEGAL REPRESENTATIVE: Duthler, Reed A., Patton, Harold R.

NUMBER OF CLAIMS: 26 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 9 Drawing Figure(s); 9 Drawing Page(s)

LINE COUNT: 1595

An implantable cardioverter for providing cardioversion electrical energy to at least one chamber of a patient's heart in need of cardioversion and applying a pain alleviating therapy at an appropriate site in the patient's body prior to or in conjunction with the delivery of the cardioversion energy to the heart chamber to alleviate propagated pain perceived by the patient. The combined cardioversion and pain alleviating therapies are preferably realized in a single implantable, multiprogrammable medical device or separate implantable cardioversion and pain control devices with means for communicating operating and status commands between the devices through the patient's body.

L5 ANSWER 12 OF 13 USPATFULL on STN

ACCESSION NUMBER: 97:77966 USPATFULL

TITLE: Method and apparatus for alleviating cardioversion

shock pain

INVENTOR(S): Elsberry, Dennis D., New Hope, MN, United States

Mehra, Rahul, Stillwater, MN, United States Otten, Lynn M., Blaine, MN, United States Rise, Mark T., Monticello, MN, United States Thompson, David L., Fridley, MN, United States

PATENT ASSIGNEE(S): Medtronic, Inc., Minneapolis, MN, United States (U.S.

corporation)

APPLICATION INFO.: US 1995-525995 19950908 (8)

DOCUMENT TYPE: Utility FILE SEGMENT: Granted

PRIMARY EXAMINER: Kamm, William E. ASSISTANT EXAMINER: Layno, Carl H.

LEGAL REPRESENTATIVE: Duthler, Reed A., Patton, Harold R.

NUMBER OF CLAIMS: 56 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 9 Drawing Figure(s); 9 Drawing Page(s)

LINE COUNT: 1685

An implantable cardioverter for providing cardioversion electrical AB energy to at least one chamber of a patient's heart in need of cardioversion and applying a pain alleviating therapy at an appropriate site in the patient's body prior to or in conjunction with the delivery of the cardioversion energy to the heart chamber to alleviate propagated pain perceived by the patient. The combined cardioversion and pain alleviating therapies are preferably realized in a single implantable, multi-programmable medical device or separate implantable cardioversion and pain control devices with means for communicating operating and status commands between the devices through the patient's body.

ANSWER 13 OF 13 USPATFULL on STN

ACCESSION NUMBER:

97:17918 USPATFULL

TITLE:

Compositions and methods for enhanced drug

INVENTOR(S):

Hale, Ron L., Woodside, CA, United States Lu, Amy, Los Altos, CA, United States

Solas, Dennis, San Francisco, CA, United States Selick, Harold E., Belmont, CA, United States Oldenburg, Kevin R., Fremont, CA, United States

Zaffaroni, Alejandro C., Atherton, CA, United States Affymax Technologies N.V., Middlesex, England (non-U.S.

PATENT ASSIGNEE(S):

corporation)

NUMBER KIND DATE

PATENT INFORMATION:

APPLICATION INFO.:

US 5607691 19970304 US 1995-449188 19950524

19950524 (8)

RELATED APPLN. INFO.:

Continuation of Ser. No. US 1993-164293, filed on 9 Dec 1993, now abandoned which is a continuation-in-part of Ser. No. US 1993-77296, filed on 14 Jun 1993, now abandoned which is a continuation-in-part of Ser. No. US 1992-898219, filed on 12 Jun 1992, now abandoned And a continuation-in-part of Ser. No. US 1993-9463, filed

on 27 Jan 1993, now abandoned

DOCUMENT TYPE:

FILE SEGMENT:

Utility Granted

PRIMARY EXAMINER:

Levy, Neil S.

LEGAL REPRESENTATIVE:

Stevens, Lauren L.

NUMBER OF CLAIMS:

EXEMPLARY CLAIM:

1

LINE COUNT:

5349

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention relates to methods of delivering pharmaceutical agents across membranes, including the skin layer or mucosal membranes of a patient. A pharmaceutical agent is covalently bonded to a chemical modifier, via a physiologically cleavable bond, such that the membrane transport and delivery of the agent is enhanced.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.